

Monitoring Data Record

Project Title: R-2248BB – Charlotte Outer Loop COE Action ID: 200131321
 Stream Name: UT Thomas Pond (Site 9) DWQ Number: 011231
 City, County and other Location Information: Mecklenburg County, Charlotte Outer Loop, NC 27 Exit (Mount Holly Road)
 Date Construction Completed: April 2005 Monitoring Year: (5) of 5
 Ecoregion: _____ 8 digit HUC unit 03050101
 USGS Quad Name and Coordinates: _____

Rosgen Classification: _____

Length of Project: 1148 ft. Urban or Rural: Rural Watershed Size: _____
 Monitoring DATA collected by: M. Green and J. Young Date: 9/11/12

Applicant Information:

Name: NCDOT – Roadside Environmental Unit
 Address: 1425 Rock Quarry Rd, Raleigh, NC 27610
 Telephone Number: (919) 861-3772 Email address: mlgreen@ncdot.gov

Consultant Information:

Name: _____
 Address: _____
 Telephone Number: _____ Email address: _____

Project Status: _____

Monitoring Level required by COE and DWQ (404 permit/ 401 Cert.): Level 1

Permit States: The permittee shall perform the following components of Level I monitoring each year for the 5-year monitoring period: Reference photos; plant survival (i.e. identify specific problem areas (missing, stressed, damaged or dead plantings), estimated causes, and proposed/required remedial action); visual inspection of channel stability. Physical measurements of channel stability/morphology will not be required. The permittee shall submit the monitoring reports to the USACE, Raleigh Regulatory Field Office Project Manager, within sixty days after completing the monitoring. If less than two bankfull events occur during the first 5 years, the permittee shall continue monitoring until the second bankfull event is documented. The bankfull events must occur during separate monitoring years. In the event that the required bankfull events do not occur during the five-year monitoring period, the USACE, in consultation with the resource agencies, may determine that further monitoring is not required. It is suggested that all bankfull occurrences be monitored and reported through the required monitoring period. The permittee shall perform and submit photo documentation twice each year (summer and winter) for the 5-year monitoring period, and for any subsequently required monitoring period.

Section 1. PHOTO REFERENCE SITES

(Monitoring at all levels must complete this section)

Total number of reference photo locations at this site: 14 photos were taken from 7 photo point locations plus additional site photos.

Dates reference photos have been taken at this site: 2/6/08, 9/3/08, 3/6/09, 9/1/09, 3/16/10, 9/28/10, 2/21/11, 9/12/11, 1/24/12, 9/11/12

Individual from whom additional photos can be obtained (name, address, phone): _____

Other Information relative to site photo reference: A site map with photo point locations is included with this report.

If required to complete Level 3 monitoring only stop here; otherwise, complete section 2.

Section 2. PLANT SURVIVAL

Attach plan sheet indicating reference photos.

Identify specific problem areas (missing, stressed, damaged or dead plantings):

Estimated causes, and proposed/required remedial action: _____

ADDITIONAL COMMENTS: The planted vegetation is surviving and consisted of black willow, silky dogwood, green ash, tulip poplar, tag alder, swamp chestnut oak, and sycamore. Other vegetation noted included alder, pine, sweetgum, goldenrod, briars, cottonwood, red maple, cattail, lespedeza, *Juncus* sp., cedar, sumac, jewelweed, baccharis, and various grasses. NCDOT completed a supplemental planting in the buffer around PP#5 and PP#6 (Loop E Area) on January 24, 2012 with sycamore and river birch bareroot seedlings being planted. These newly planted seedlings are surviving. NCDOT installed signs to prevent further site disturbance. NCDOT proposes to discontinue plant survival monitoring at this stream mitigation site.

If required to complete Level 1 and Level 2 monitoring only stop here; otherwise, complete section 3.

Section 3. CHANNEL STABILITY

Visual Inspection: The entire stream project as well as each in-stream structure and bank stabilization/revetment structure must be evaluated and problems addressed.

Report on the visual inspection of channel stability. Physical measurements of channel stability/morphology will not be required. Include a discussion of any deviations from as-built and an evaluation of the significance of these deviations and whether they are indicative of a stabilizing or destabilizing situation.

This completes the Year 5 Summer evaluation for the UT Thomas Pond stream mitigation site. Overall, the channel is stable.

A site visit was conducted on July 21, 2011 with the regulatory agencies and NCDOT personnel present.

During the Sept. 2012 monitoring evaluation, a series of small beaver dams (see additional photos) were noted throughout this stream mitigation site. NCDOT will contact USDA to trap the beavers from this stream mitigation site. There have been four bankfull events visually documented over the 5- year monitoring period. NCDOT has completed five years of monitoring evaluations and proposes to discontinue monitoring this stream mitigation site for channel stability.

| | | | | | |
|---|--|--------------------------------|----------------|-------------------|-------------------|
| Date 9/11/12 | Station Number 217+80 –L- (PP#1 Upstream) | Station Number 219+00-L- | Station Number | Station Number | Station Number |
| Structure Type | Crossvane | | | | |
| Is water piping through or around structure? | Water piping under crossvane | | | | |
| Head cut or down cut present? | | | | | |
| Bank or scour erosion present? | | | | | |
| Other problems noted? | | New channel is still stable | | | |

Section 4. DEBIT LEDGER

The entire UT Thomas Pond stream mitigation site was used for the R-2248BB project to compensate for unavoidable stream impacts.

UT Thomas Pond



Photo Point #1 (Upstream)



Photo Point # 1 (Downstream)



Photo Point # 2 (Upstream)



Photo Point #2 (Downstream)



Photo Point #3 (Upstream)
Year 5 Summer – September 2012



Photo Point #3 (Downstream)

UT Thomas Pond



Photo Point # 4 (Upstream)



Photo Point #4 (Downstream)



Photo Point #5 (Upstream)



Photo Point #5 (Downstream)



Photo Point #6 (Upstream)

Year 5 Summer – September 2012



Photo Point #6 (Downstream)

UT Thomas Pond



Photo Point #7 (Upstream)



Photo Point #7 (Downstream)



Beaver dam b/t PP#2 and PP#3



Beaver dam b/t PP#3 and culvert inlet @ I-485



Beaver dam b/t culvert outlet @ I-485 and PP#4
Year 5 Summer – September 2012



Beaver dam b/t PP#4 and PP#5

UT Thomas Pond



Overview of stream buffer inside Loop F



Replanted buffer that was previously mowed inside Loop E



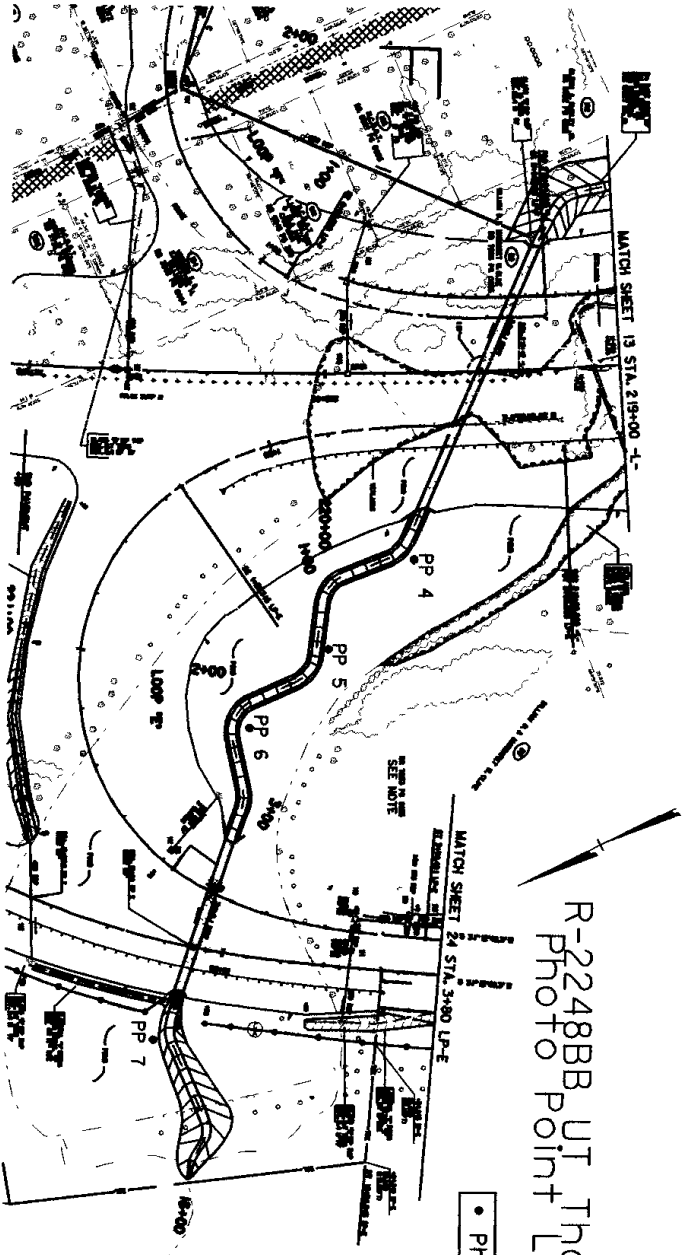
Overview of stream buffer inside Loop E



Overview of stream buffer on outlet end of culvert @ Ramp E

Year 5 Summer – September 2012

4.60



R-2248BB, UT Thomas Pond Photo Point Locations

• Photo Points